Geometry 11.4 Assignment: Circumference & Arc Length (pp 683-5)

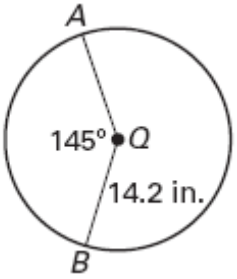
1. What is your name?

Find the indicated measure.

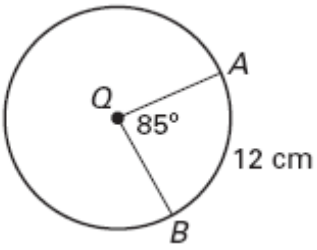
2. Radius

$C \approx 94$ in.

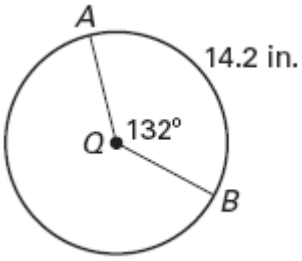
3. Length of $\overset{\frown}{AB}$.



4. Circumference



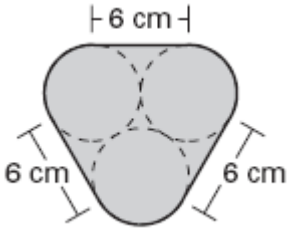
5. Radius



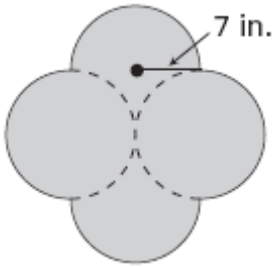
Geometry 11.4 Assignment: Circumference & Arc Length (pp 683-5)

Each region is bounded by circular arcs or line segments. Find the perimeter of the region.

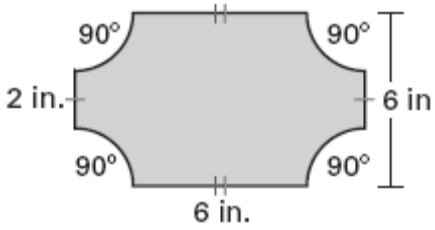
6.



7.



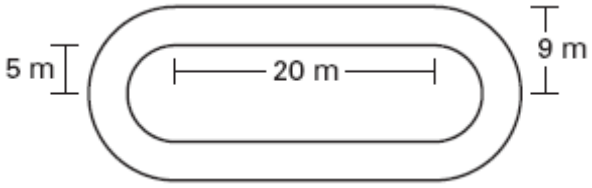
8.



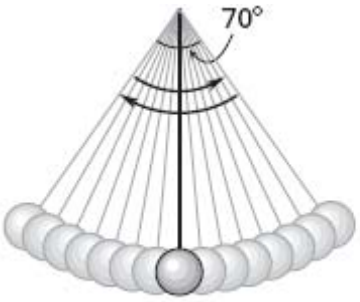
Geometry 11.4 Assignment: Circumference & Arc Length (pp 683-5)

9. A spool of thread contains 150 revolutions of thread. The diameter of the spool is 3 centimeters. Find the length of the thread to the nearest centimeter.

10. Find the distance around the track on the inside lane and on the outside lane.

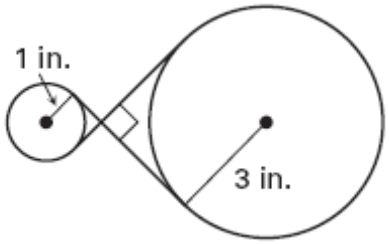


11. Find the distance traveled in one back-and-forth swing by the weight of a 16 inch pendulum that swings through a $70°$ angle.

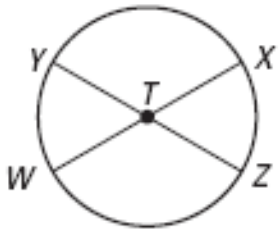


Geometry 11.4 Assignment: Circumference & Arc Length (pp 683-5)

12. Two belt-driven gears for a turntable are shown. What is the total length of the belt?

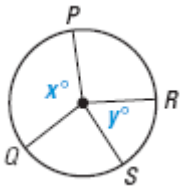


13. _____ In the diagram shown, *YZ* & *WX* each measure 8 units and are diameters of $\odot T$. If $\overset{\frown}{YX}$ measures 120°, what is the length of $\overset{\frown}{XZ}$?



A. $\frac{2}{3}\pi$
B. $\frac{4}{3}\pi$
C. $\frac{8}{3}\pi$
D. 4π
E. 8π

14. _____ In the diagram shown, the ratio of the length of $\overset{\frown}{PQ}$ to the length of $\overset{\frown}{RS}$ is 2 to 1. What is the ratio of *x* to *y*?



A. 4 to 1
B. 2 to 1
C. 1 to 1
D. 1 to 2
E. 1 to 4

Geometry 11.4 Assignment: Circumference & Arc Length (pp 683-5)

Review

The radius of a circle is given. Use the formula $A = \pi r^2$ to calculate the exact area (don't multiply π out) of the circle. *(Chapter 1 Section 7)*

15. r = 9 ft

16. r = 3.3 in

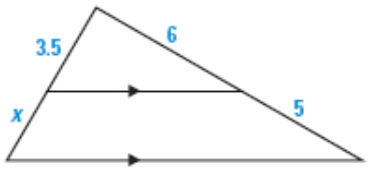
17. $r = \frac{27}{5} in$

18. $r = 4\sqrt{11} m$

19. Line n_1 has the equation $y = \frac{2}{3}x + 8$. Line n_2 is parallel to n_1 and passes through the point (9, -2). Write an equation for n_2. *(Chapter 3 Section 6)*

Find the value of the variable. *(Chapter 8 Section 6)*

20.



21.